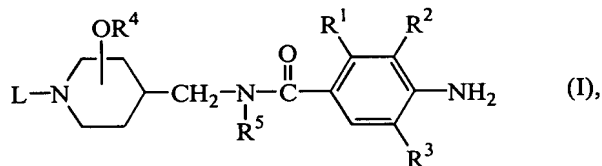


Claims

1. A compound of formula (I)



a stereochemically isomeric form thereof, an *N*-oxide form thereof or a pharmaceutically acceptable acid or base addition salt thereof, wherein R¹ and R² taken together form a bivalent radical of formula

- $\text{-O-CH}_2\text{-O-}$ (a-1),
 $\text{-O-CH}_2\text{-CH}_2\text{-}$ (a-2),
 $\text{-O-CH}_2\text{-CH}_2\text{-O-}$ (a-3),
 $\text{-O-CH}_2\text{-CH}_2\text{-CH}_2\text{-}$ (a-4),
 $\text{-O-CH}_2\text{-CH}_2\text{-CH}_2\text{-O-}$ (a-5),
 $\text{-O-CH}_2\text{-CH}_2\text{-CH}_2\text{-CH}_2\text{-}$ (a-6),

wherein in said bivalent radicals one or two hydrogen atoms may be substituted with C₁₋₆alkyl,

R^3 is hydrogen or halo;

R⁴ is hydrogen or C₁₋₆alkyl;

R⁵ is hydrogen or C₁₋₆alkyl;

L is C₃₋₆cycloalkyl, C₅₋₆cycloalkanone, or C₂₋₆alkenyl,
or L is a radical of formula

- Alk-R⁶ (b-1),
 -Alk-X-R⁷ (b-2),
 -Alk-Y-C(=O)-R⁹ (b-3), or
 -Alk-Y-C(=O)-NR¹¹R¹² (b-4),

wherein each Alk is C₁₋₁₂alkanediyl; and

R⁶ is hydrogen, hydroxy, cyano, C₁₋₆alkylsulfonylamino, C₃₋₆cycloalkyl, C₅₋₆cycloalkanone, or Het¹;

R⁷ is hydrogen, C₁₋₆alkyl, hydroxyC₁₋₆alkyl, C₃₋₆cycloalkyl, or Het²;

X is O, S, SO₂ or NR⁸; said R⁸ being hydrogen or C₁₋₆alkyl;

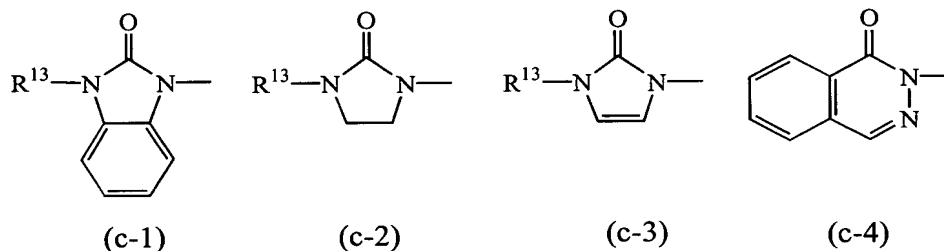
R⁹ is hydrogen, C₁₋₆alkyl, C₃₋₆cycloalkyl, C₁₋₆alkyloxy or hydroxy;

Y is NR¹⁰ or a direct bond; said R¹⁰ being hydrogen or C₁₋₆alkyl;

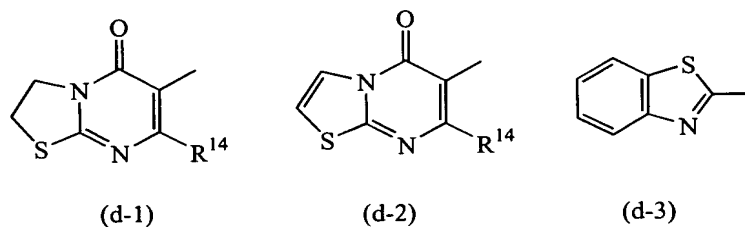
R¹¹ and R¹² each independently are hydrogen, C₁₋₆alkyl, C₃₋₆cycloalkyl, or R¹¹ and R¹² combined with the nitrogen atom bearing R¹¹ and R¹² may form a

pyrrolidinyl or piperidinyl ring both being optionally substituted with C₁₋₆alkyl, amino or mono or di(C₁₋₆alkyl)amino, or said R¹¹ and R¹² combined with the nitrogen bearing R¹¹ and R¹² may form a piperazinyl or 4-morpholinyl radical both being optionally substituted with C₁₋₆alkyl; and Het¹ and Het² each independently are selected from furan; furan substituted with C₁₋₆alkyl or halo; tetrahydrofuran; a tetrahydrofuran substituted with C₁₋₆alkyl; a dioxolane; a dioxolane substituted with C₁₋₆alkyl, a dioxane; a dioxane substituted with C₁₋₆alkyl; tetrahydropyran; a tetrahydropyran substituted with C₁₋₆alkyl; pyrrolidinyl; pyrrolidinyl substituted with one or two substituents each independently selected from halo, hydroxy, cyano, or C₁₋₆alkyl; pyridinyl; pyridinyl substituted with one or two substituents each independently selected from halo, hydroxy, cyano, C₁₋₆alkyl; pyrimidinyl; pyrimidinyl substituted with one or two substituents each independently selected from halo, hydroxy, cyano, C₁₋₆alkyl, C₁₋₆alkyloxy, amino and mono and di(C₁₋₆alkyl)amino; pyridazinyl; pyridazinyl substituted with one or two substituents each independently selected from hydroxy, C₁₋₆alkyloxy, C₁₋₆alkyl or halo; pyrazinyl; pyrazinyl substituted with one or two substituents each independently selected from halo, hydroxy, cyano, C₁₋₆alkyl, C₁₋₆alkyloxy, amino, mono- and di(C₁₋₆alkyl)amino and C₁₋₆alkyloxycarbonyl;

Het¹ can also be a radical of formula



Het¹ and Het² each independently can also be selected from the radicals of formula



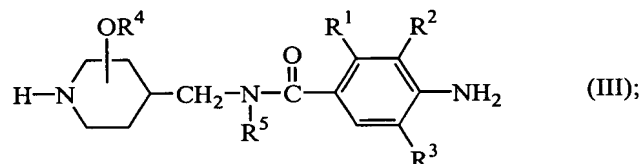
R¹³ and R¹⁴ each independently are hydrogen or C₁₋₄alkyl.

2. A compound as claimed in claim 1 wherein the -OR⁴ radical is situated at the
5 3-position of the central piperidine moiety having the trans configuration.
3. A compound as claimed in claim 1 wherein the -OR⁴ radical is situated at the
4-position of the central piperidine moiety.
- 10 4. A compound as claimed in any of claims 1 to 3 wherein L is C₃₋₆cycloalkyl or
C₂₋₆alkenyl; or L is a radical of formula (b-1), wherein each Alk is C₁₋₆alkanediyl,
and R⁶ is hydrogen, hydroxy, cyano, amino, C₁₋₆alkylsulfonylamino, C₃₋₆cycloalkyl
or Het¹, wherein Het¹ is tetrahydrofuran; dioxolane; dioxolane substituted with
15 C₁₋₆alkyl; tetrahydropyran; pyridazinyl substituted with one or more substituents
selected from hydroxy, halo and C₁₋₆alkyl; or a radical of formula (c-1), (c-3) or
(c-4) wherein R¹³ is C₁₋₄alkyl; or L is a radical of formula (b-2), wherein Alk is
C₁₋₆alkanediyl, X is O, and R⁷ is C₁₋₆alkyl or hydroxyC₁₋₆alkyl; or L is a radical of
formula (b-2), wherein Alk is C₁₋₆alkanediyl, R⁷ is Het² wherein Het² is pyrazinyl
substituted with C₁₋₆alkyl, and X is NR⁸ wherein R⁸ is hydrogen or C₁₋₆alkyl; or L
20 is a radical of formula (b-3) wherein Y is a direct bond, and R⁹ is C₁₋₆alkyl, hydroxy
or C₁₋₆alkyloxy; or L is a radical of formula (b-4) wherein Y is a direct bond, and
R¹¹ and R¹² are C₁₋₆alkyl, or R¹¹ and R¹² combined with the nitrogen atom bearing
R¹¹ and R¹² form pyrrolidiny.
- 25 5. A compound as claimed in claim 4 wherein L is butyl; propyl substituted with
methoxy, methylcarbonyl or 2-methyl-1,3-dioxolane; ethyl substituted with
4-methyl-2-pyridazinone or tetrahydropyranyl; or methyl substituted with
tetrahydrofuranyl or tetrahydropyranyl.
- 30 6. A compound as claimed in claim 1 wherein the compound is
(trans)-(-)-4-amino-5-chloro-2,3-dihydro-*N*-[[3-hydroxy-1-(3-methoxypropyl)-4-
piperidinyl]methyl]-2,2-dimethyl-7-benzofurancarboxamide; a pharmaceutically
acceptable acid addition salt or an *N*-oxide form thereof.
- 35 7. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and
a therapeutically active amount of a compound according to any of claims 1 to 6.

8. A process for preparing a pharmaceutical composition according to claim 7 wherein a therapeutically active amount of a compound according to any of claims 1 to 6 is intimately mixed with a pharmaceutically acceptable carrier.

5 9. A compound according to any of claims 1 to 6 for use as a medicine.

10. A compound of formula (III)

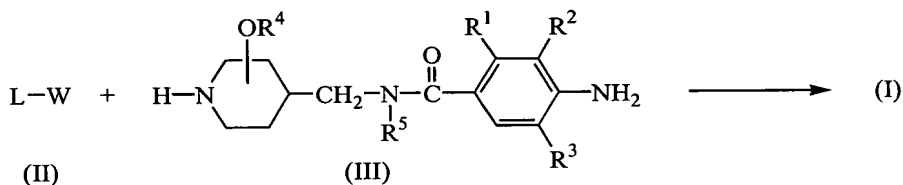


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a pharmaceutically acceptable acid addition salt thereof or a stereochemically isomeric form thereof, wherein R¹, R², R³, R⁴ and R⁵ are as defined in claim 1 for compounds of formula (I).

15 11. A process for preparing a compound of formula (I) wherein

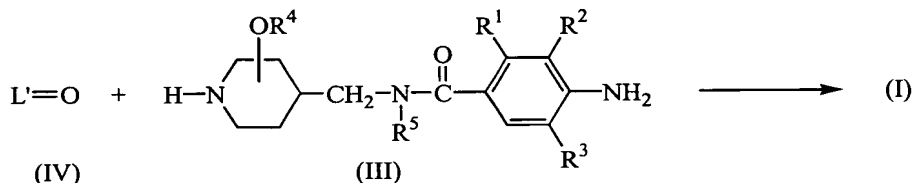
a) an intermediate of formula (II) is *N*-alkylated with an intermediate of formula (III) in a reaction-inert solvent and, optionally in the presence of a suitable base,



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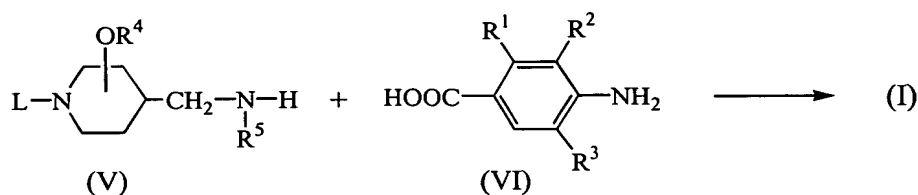
b) an appropriate ketone or aldehyde intermediate of formula L'=O (IV), said L'=O being a compound of formula L-H, wherein two geminal hydrogen atoms in the C₁₋₁₂alkanediyl moiety are replaced by =O, is reacted with an intermediate of formula (III);

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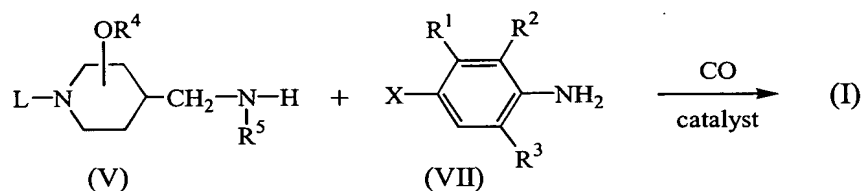


c) an intermediate of formula (V) is reacted with an carboxylic acid derivative of formula (VI) or a reactive functional derivative thereof;

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- d) an intermediate of formula (VII), wherein X is bromo or iodo, is carbonylated in the presence of an intermediate of formula (V) in a reaction-inert solvent in the presence of a suitable catalyst and a tertiary amine, and at a temperature ranging between room temperature and the reflux temperature of the reaction mixture;

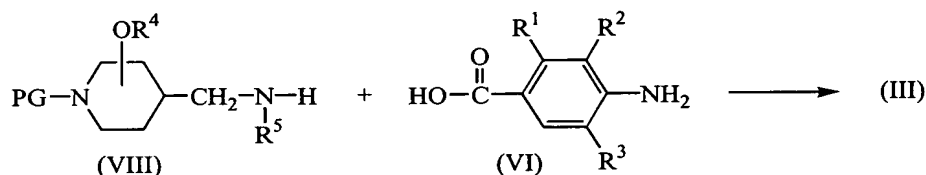


wherein in the above reaction schemes the radicals L, R¹, R², R³, R⁴ and R⁵ are as defined in claim 1 and W is an appropriate leaving group;

- e) or, compounds of formula (I) are converted into each other following art-known transformation reactions; or if desired; a compound of formula (I) is converted into a pharmaceutically acceptable acid addition salt, or conversely, an acid addition salt of a compound of formula (I) is converted into a free base form with alkali; and, if desired, preparing stereochemically isomeric forms thereof.

12. A process for preparing a compound of formula (III) wherein

- a) an intermediate of formula (VIII), wherein PG is an appropriate protective group, is reacted with an acid of formula (VI), or an appropriate reactive functional derivative thereof, in a reaction-inert solvent and subsequent deprotection of the protecting group PG yielding compounds of formula (III);



wherein in the above reaction schemes the radicals L, R¹, R², R³, R⁴ and R⁵ are as defined in claim 1 and W is an appropriate leaving group;

- 5 b) or, compounds of formula (III) are converted into each other following art-known transformation reactions; or if desired; a compound of formula (III) is converted into an acid addition salt, or conversely, an acid addition salt of a compound of formula (III) is converted into a free base form with alkali; and, if desired, preparing stereochemically isomeric forms thereof.